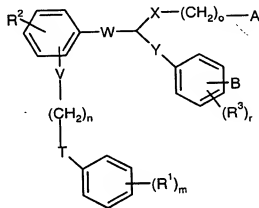


Patent Claims

Sub  
5A11

1. The use of compounds which are also capable of stimulating soluble guanylate cyclase independently of the hem group in the enzyme, for preparing medicaments for the treatment of cardiovascular disorders, such as angina pectoris, ischemia and cardiac insufficiency.
2. The use of compounds which are also capable of stimulating soluble guanylate cyclase independently of the hem group in the enzyme, for preparing medicaments for the treatment of arteriosclerosis, hypertension, thromboembolic disorders, venous disorders and fibrotic disorders, such as, in particular, hepatic fibrosis.
3. A compound of the general formula (I)

15



(I)

in which

20

V is absent or represents O,

n represents an integer from 1 to 10,

T is absent or represents O,

$R^1$  represents hydrogen, straight-chain or branched alkyl or straight-chain or branched alkoxy having in each case up to 12 carbon atoms, halogen,  $CF_3$ ,  $OCF_3$  or CN,

$m$  represents 1 or 2,

$R^2$  represents hydrogen, straight-chain or branched alkyl or straight-chain or branched alkoxy having in each case up to 12 carbon atoms, halogen,  $CF_3$ ,  $OCF_3$  or CN,

$W$  represents  $CH_2CH_2$  or  $CH=CH$ , if  $W$  is located on the phenyl ring in a position ortho to the radical  $V-(CH_2)_n-T-Ph-(R^1)_m$ ,

with the proviso that  $W$  does not represent  $CH=CH$  if simultaneously  $T=V=O$ ,  $R^1=R^2=R^3=H$ ,  $n=4$ ,  $Y=CH_2$ ,  $A$  and  $B$  are simultaneously  $COOH$  or  $COOCH_3$ ,  $X$  is absent or  $S$  and  $o$  is 3 or 4,

or represents  $CH_2CH_2CH_2$  or  $CH_2CH=CH$ , if  $W$  is located on the phenyl ring in a position meta to the radical  $V-(CH_2)_n-T-Ph-(R^1)_m$ ,

with the proviso that  $W$  does not represent  $CH_2CH=CH$  if either simultaneously  $T=V=O$ ,  $R^1=H$  or  $F$ ,  $m=1$ ,  $R^2=R^3=H$ ,  $n=3$ ,  $Y=CH_2$ ,  $A$  and  $B$  are simultaneously  $COOH$  or  $COOCH_3$ ,  $X$  is absent or  $S$  and  $o$  is 3 or 4, or simultaneously  $T$  is absent or  $O$ ,  $V$  is absent,  $R^1=R^2=R^3=H$ ,  $n$  is 4 or 5,  $Y=CH_2$ ,  $A$  and  $B$  are simultaneously  $COOH$  or  $COOCH_2CH_3$ ,  $X$  is absent and  $o=4$ ,

$X$  is absent or represents straight-chain or branched alkylene having up to 6 carbon atoms,  $O$ ,  $SCH_2$  or  $S(O)_p$ ,

in which

$p$  represents 0, 1 or 2

o represents an integer from 1 to 5

A represents tetrazolyl, tetrazolylmethylene, COOH, CH<sub>2</sub>COOH,  
COOR<sup>4</sup>, CH<sub>2</sub>COOR<sup>5</sup>, CONR<sup>6</sup>R<sup>7</sup> or CN,

in which

R<sup>4</sup> and R<sup>5</sup> independently of one another represent straight-chain or  
branched alkyl having up to 6 carbon atoms,

R<sup>6</sup> and R<sup>7</sup> independently of one another represent hydrogen,  
straight-chain or branched alkyl having up to 6 carbon  
atoms, straight-chain or branched alkylsulfonyl having  
up to 12 carbon atoms, arylsulfonyl having 6 to 12  
carbon atoms,

or

R<sup>6</sup> and R<sup>7</sup> together with the nitrogen atom to which they are  
attached form a 3- to 8-membered saturated heterocycle

Y is absent or represents straight-chain or branched alkylene having up  
to 6 carbon atoms, O, SCH<sub>2</sub> or S(O)<sub>q</sub>,

in which

q represents 0, 1 or 2

B represents tetrazolyl, tetrazolylmethylene, COOH, CH<sub>2</sub>COOH,  
COOR<sup>8</sup>, CH<sub>2</sub>COOR<sup>9</sup>, CONR<sup>10</sup>R<sup>11</sup> or CN,



W represents  $\text{CH}_2\text{CH}_2$  or  $\text{CH}=\text{CH}$  and is located on the phenyl ring in a position ortho to the radical  $\text{V}-(\text{CH}_2)_n\text{-T-Ph-(R}^1)_m$ ,  
with the proviso that W does not represent  $\text{CH}=\text{CH}$  if simultaneously  
 $\text{T}=\text{V}=\text{O}$ ,  $\text{R}^1=\text{R}^2=\text{R}^3=\text{H}$ ,  $n=4$ ,  $\text{Y}=\text{CH}_2$ , A and B are simultaneously  
COOH or  $\text{COOCH}_3$ , X is absent or represents S and o is 3 or 4,

and the other substituents are as defined in claim 3.

5. A compound as claimed in claim 3,

in which

W represents  $\text{CH}_2\text{CH}_2\text{CH}_2$  or  $\text{CH}_2\text{CH}=\text{CH}$  and is located on the phenyl ring in a position meta to the radical  $\text{V}-(\text{CH}_2)_n\text{-T-Ph-(R}^1)_m$ ,  
with the proviso that W does not represent  $\text{CH}_2\text{CH}=\text{CH}$  if either  
simultaneously  $\text{T}=\text{V}=\text{O}$ ,  $\text{R}^1=\text{H}$  or F,  $m=1$ ,  $\text{R}^2=\text{R}^3=\text{H}$ ,  $n=3$ ,  $\text{Y}=\text{CH}_2$ , A  
and B are simultaneously COOH or  $\text{COOCH}_3$ , X is absent or  
represents S and o is 3 or 4, or simultaneously T is absent or  
represents O, V is absent,  $\text{R}^1=\text{R}^2=\text{R}^3=\text{H}$ , n is 4 or 5,  $\text{Y}=\text{CH}_2$ , A and B  
are simultaneously COOH or  $\text{COOCH}_2\text{CH}_3$ , X is absent and  $o=4$ ,

and the other substituents are as defined in claim 3.

6. A compound as claimed in claim 3,

in which

V represents O,

n represents an integer from 1 to 10,

T is absent,

R<sup>1</sup> represents hydrogen, straight-chain or branched alkyl or straight-chain or branched alkoxy having in each case up to 12 carbon atoms, halogen, CF<sub>3</sub>, OCF<sub>3</sub> or CN,

m represents 1 or 2,

R<sup>2</sup> represents hydrogen, straight-chain or branched alkyl or straight-chain or branched alkoxy having in each case up to 12 carbon atoms, halogen, CF<sub>3</sub>, OCF<sub>3</sub> or CN,

W represents CH<sub>2</sub>CH<sub>2</sub> or CH=CH if W is located on the phenyl ring in a position ortho to the radical V-(CH<sub>2</sub>)<sub>n</sub>-T-Ph-(R<sup>1</sup>)<sub>m</sub>, or represents CH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub> or CH<sub>2</sub>CH=CH if W is located on the phenyl ring in a position meta to the radical V-(CH<sub>2</sub>)<sub>n</sub>-T-Ph-(R<sup>1</sup>)<sub>m</sub> angeordnet ist,

X is absent or represents straight-chain or branched alkylene having up to 6 carbon atoms, O, SCH<sub>2</sub> or S(O)<sub>p</sub>,

in which

p represents 0, 1 or 2

o represents an integer from 1 to 5

A represents tetrazolyl, tetrazolylmethylene, COOH, CH<sub>2</sub>COOH, COOR<sup>4</sup>, CH<sub>2</sub>COOR<sup>5</sup>, CONR<sup>6</sup>R<sup>7</sup> or CN,

in which

$R^4$  and  $R^5$  independently of one another represent straight-chain or branched alkyl having up to 6 carbon atoms,

$R^6$  and  $R^7$  independently of one another represent hydrogen, straight-chain or branched alkyl having up to 6 carbon atoms, straight-chain or branched alkylsulfonyl having up to 12 carbon atoms, arylsulfonyl having 6 to 12 carbon atoms,

or

$R^6$  and  $R^7$  together with the nitrogen atom to which they are attached form a 3- to 8-membered saturated heterocycle

$Y$  is absent or represents straight-chain or branched alkylene having up to 6 carbon atoms, O,  $SCH_2$  or  $S(O)_q$ ,

in which

$q$  represents 0, 1 or 2

$B$  represents tetrazolyl, tetrazolylmethylene,  $COOH$ ,  $CH_2COOH$ ,  $COOR^8$ ,  $CH_2COOR^9$ ,  $CONR^{10}R^{11}$  or  $CN$ ,

in which

$R^8$  and  $R^9$  independently of one another represent straight-chain or branched alkyl having up to 6 carbon atoms,

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5  $R^{10}$  and  $R^{11}$  independently of one another represent hydrogen, straight-chain or branched alkyl having up to 6 carbon atoms, straight-chain or branched alkylsulfonyl having up to 12 carbon atoms, arylsulfonyl having 6 to 12 carbon atoms,

or

10  $R^{10}$  and  $R^{11}$  together with the nitrogen atom to which they are attached form a 3- to 8-membered saturated heterocycle,

15  $R^3$  represents hydrogen, straight-chain or branched alkyl or straight-chain or branched alkoxy having in each case up to 12 carbon atoms, halogen,  $CF_3$ ,  $OCF_3$  or CN,

r represents 0, 1 or 2,

and its salts and stereoisomers.

20

7. A compound as claimed in claim 3,

in which

25 V is absent

n represents an integer from 1 to 3,

T is absent,

30



- $R^1$  represents hydrogen, straight-chain or branched alkyl or straight-chain or branched alkoxy having in each case up to 12 carbon atoms, halogen,  $CF_3$ ,  $OCF_3$  or CN,
- 5  $m$  represents 1 or 2,
- $R^2$  represents hydrogen, straight-chain or branched alkyl or straight-chain or branched alkoxy having in each case up to 12 carbon atoms, halogen,  $CF_3$ ,  $OCF_3$  or CN,
- 10  $W$  represents  $CH_2CH_2$  or  $CH=CH$  if  $W$  is located on the phenyl ring in a position ortho to the radical  $V-(CH_2)_n-T-Ph-(R^1)_m$ ,  
or represents  $CH_2CH_2CH_2$  or  $CH_2CH=CH$  if  $W$  is located on the phenyl ring in a position meta to the radical  $V-(CH_2)_n-T-Ph-(R^1)_m$
- 15  $X$  is absent or represents straight-chain or branched alkylene having up to 6 carbon atoms, O,  $SCH_2$  or  $S(O)_p$ ,
- 20 in which
- $p$  represents 0, 1 or 2
- $o$  represents an integer from 1 to 5
- 25  $A$  represents tetrazolyl, tetrazolylmethylene,  $COOH$ ,  $CH_2COOH$ ,  $COOR^4$ ,  $CH_2COOR^5$ ,  $CONR^6R^7$  or CN,
- in which
- 30

- 5                     $R^4$  and  $R^5$             independently of one another represent straight-chain or branched alkyl having up to 6 carbon atoms,
- $R^6$  and  $R^7$             independently of one another represent hydrogen, straight-chain or branched alkyl having up to 6 carbon atoms, straight-chain or branched alkylsulfonyl having up to 12 carbon atoms, arylsulfonyl having 6 to 12 carbon atoms,
- 10                   or
- $R^6$  and  $R^7$             together with the nitrogen atom to which they are attached form a 3- to 8-membered saturated heterocycle
- 15                   Y                    is absent or represents straight-chain or branched alkylene having up to 6 carbon atoms, O,  $SCH_2$  or  $S(O)_q$ ,
- in which
- 20                   q                    represents 0, 1 or 2
- B                    represents tetrazolyl, tetrazolylmethylene,  $COOH$ ,  $CH_2COOH$ ,  $COOR^8$ ,  $CH_2COOR^9$ ,  $CONR^{10}R^{11}$  or  $CN$ ,
- 25                   in which
- $R^8$  and  $R^9$             independently of one another represent straight-chain or branched alkyl having up to 6 carbon atoms,
- 30                    $R^{10}$  and  $R^{11}$           independently of one another represent hydrogen, straight-chain or branched alkyl having up to 6 carbon

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atoms, straight-chain or branched alkylsulfonyl having up to 12 carbon atoms, arylsulfonyl having 6 to 12 carbon atoms,

5 or

$R^{10}$  and  $R^{11}$  together with the nitrogen atom to which they are attached form a 3- to 8-membered saturated heterocycle,

10

$R^3$  represents hydrogen, straight-chain or branched alkyl or straight-chain or branched alkoxy having in each case up to 12 carbon atoms, halogen,  $CF_3$ ,  $OCF_3$  or CN,

15

$r$  represents 0, 1 or 2,

and its salts and stereoisomers.

8. A compound as claimed in claim 4,

20

in which

$V$  is absent or represents O,

25

$n$  represents an integer from 1 to 10,

$T$  is absent or represents O,

30

$R^1$  represents hydrogen, straight-chain or branched alkyl or straight-chain or branched alkoxy having in each case up to 12 carbon atoms, halogen,  $CF_3$ ,  $OCF_3$  or CN,

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- m represents 1 or 2,
- 5  $R^2$  represents hydrogen, straight-chain or branched alkyl or straight-chain or branched alkoxy having in each case up to 12 carbon atoms, halogen,  $CF_3$ ,  $OCF_3$  or CN,
- 10 W represents  $CH_2CH_2$  or  $CH=CH$  and is located on the phenyl ring in a position ortho to the radical  $V-(CH_2)_n-T-Ph-(R^1)_m$ , with the proviso that W does not represent  $CH=CH$  if simultaneously  $T=V=O$ ,  $R^1=R^2=H$ ,  $n=4$  and A and B are simultaneously  $COOH$  or  $COOCH_3$ ,
- 15 X is absent,
- o represents an integer from 1 to 4,
- A represents  $COOH$  or  $COOR^4$ ,
- 20 in which
- $R^4$  represents alkyl having up to 2 carbon atoms,
- Y represents O, S, SO,  $SO_2$  or  $CH_2$ ,
- 25 B represents  $COOH$ ,  $COOR^8$  or CN,
- in which
- 30  $R^8$  represents alkyl having up to 2 carbon atoms,

$R^3$  represents hydrogen, straight-chain or branched alkoxy having up to 6 carbon atoms, F, Cl, Br or I,

$r$  represents 0, 1 or 2.

5

9. A compound as claimed in claim 4,

in which

10

$V$  is absent or represents O,

$n$  represents an integer from 1 to 6,

$T$  is absent or represents O,

15

$R^1$  represents hydrogen, straight-chain or branched alkyl or straight-chain or branched alkoxy having in each case up to 6 carbon atoms, F, Cl, Br or  $CF_3$ ,

20

$m$  represents 1 or 2,

$R^2$  represents hydrogen or straight-chain or branched alkyl having up to 6 carbon atoms,

25

$W$  represents  $CH_2CH_2$  or  $CH=CH$  and is located on the phenyl ring in a position ortho to the radical  $V-(CH_2)_n-T-Ph-(R^1)_m$ ,  
with the proviso that  $W$  does not represent  $CH=CH$  if simultaneously  $T=V=O$ ,  $R^1=R^2=H$ ,  $n=4$  and  $A$  and  $B$  are simultaneously  $COOH$  or  $COOCH_3$ ,

30

$X$  is absent,

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o represents an integer from 1 to 4,

A represents COOH or COOR<sup>4</sup>,

5

in which

R<sup>4</sup> represents alkyl having up to 2 carbon atoms,

10

Y represents O, S or CH<sub>2</sub>,

B represents COOH, COOR<sup>8</sup> or CN,

in which

15

R<sup>8</sup> represents alkyl having up to 2 carbon atoms,

R<sup>3</sup> represents hydrogen, straight-chain or branched alkoxy having up to 4 carbon atoms, Cl or Br,

20

r represents 0, 1 or 2.

10. A compound as claimed in claim 4,

25

in which

V is absent or represents O,

n represents an integer from 1 to 6,

30

T is absent or represents O,

- 5  $R^1$  represents hydrogen, straight-chain or branched alkyl or straight-chain or branched alkoxy having in each case up to 6 carbon atoms, F, Cl, Br or  $CF_3$ ,
- $m$  represents 1 or 2,
- 10  $R^2$  represents hydrogen or straight-chain or branched alkyl having up to 6 carbon atoms,
- $W$  represents  $CH_2CH_2$  or  $CH=CH$  and is located on the phenyl ring in a position ortho to the radical  $V-(CH_2)_n-T-Ph-(R^1)_m$ ,  
with the proviso that  $W$  does not represent  $CH=CH$  if simultaneously  $T=V=O$ ,  $R^1=R^2=H$ ,  $n=4$  and  $A$  and  $B$  are simultaneously  $COOH$  or  $COOCH_3$ ,
- 15  $X$  is absent,
- $o$  represents an integer from 1 to 4,
- 20  $A$  represents  $COOH$ ,
- $Y$  represents O, S or  $CH_2$ ,
- 25  $B$  represents  $COOH$ ,
- $R^3$  represents hydrogen, straight-chain or branched alkoxy having up to 4 carbon atoms, Cl or Br,
- 30  $r$  represents 0, 1 or 2.

11. A compound as claimed in claim 5,

in which

5 V is absent or represents O,

n represents an integer from 1 to 10,

T is absent or represents O,

10

R<sup>1</sup> represents hydrogen, straight-chain or branched alkyl or straight-chain or branched alkoxy having in each case up to 12 carbon atoms, halogen, CF<sub>3</sub>, OCF<sub>3</sub> or CN,

15

m represents 1 or 2,

R<sup>2</sup> represents hydrogen, straight-chain or branched alkyl or straight-chain or branched alkoxy having in each case up to 12 carbon atoms, halogen, CF<sub>3</sub>, OCF<sub>3</sub> or CN,

20

W represents CH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub> or CH<sub>2</sub>CH=CH and is located on the phenyl ring in a position meta to the radical V-(CH<sub>2</sub>)<sub>n</sub>-T-Ph-(R<sup>1</sup>)<sub>m</sub>, with the proviso that W does not represent CH<sub>2</sub>CH=CH if either simultaneously T=V=O, R<sup>1</sup>=H or F, m=1, R<sup>2</sup>=H, n=3 and A and B are simultaneously COOH or COOCH<sub>3</sub>, or simultaneously T is absent or represents O, V is absent, R<sup>1</sup>=R<sup>2</sup>=H, n is 4 or 5, A and B are simultaneously COOH or COOCH<sub>2</sub>CH<sub>3</sub>, and o=4,

25

X is absent,

30

o represents 3 or 4,



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A represents COOH or COOR<sup>4</sup>,

in which

5

R<sup>4</sup> represents alkyl having up to 2 carbon atoms,

Y represents CH<sub>2</sub>.

10

B represents COOH, COOR<sup>8</sup> or CN,

in which

R<sup>8</sup> represents alkyl having up to 2 carbon atoms,

15

R<sup>3</sup> represents hydrogen,

r represents 0, 1 or 2.

20

12. A compound as claimed in claim 5,

in which

V is absent or represents O,

25

n represents an integer from 1 to 6,

T is absent or represents O,

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- $R^1$  represents hydrogen, straight-chain or branched alkyl or straight-chain or branched alkoxy having in each case up to 6 carbon atoms, F, Cl, Br or  $CF_3$ ,
- 5  $m$  represents 1 or 2,
- $R^2$  represents hydrogen, straight-chain or branched alkyl having up to 6 carbon atoms, F, Cl, Br or  $CF_3$ ,
- 10  $W$  represents  $CH_2CH_2CH_2$  or  $CH_2CH=CH$  and is located on the phenyl ring in a position meta to the radical  $V-(CH_2)_n-T-Ph-(R^1)_m$ , with the proviso that  $W$  does not represent  $CH_2CH=CH$  if either simultaneously  $T=V=O$ ,  $R^1=H$  or F,  $m=1$ ,  $R^2=H$ ,  $n=3$  and A and B are simultaneously COOH or  $COOCH_3$ , or simultaneously T is absent or
- 15 represents O, V is absent,  $R^1=R^2=H$ , n is 4 or 5, A and B are simultaneously COOH or  $COOCH_2CH_3$ , and  $o=4$ ,
- $X$  is absent,
- 20  $o$  represents 3 or 4,
- A represents COOH or  $COOR^4$ ,
- in which
- 25  $R^4$  represents alkyl having up to 2 carbon atoms,
- $Y$  represents  $CH_2$ ,
- 30 B represents COOH,  $COOR^8$  or CN,

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in which

 $R^8$  represents alkyl having up to 2 carbon atoms,5  $R^3$  represents hydrogen, $r$  represents 0, 1 or 2.

13. A compound as claimed in claim 5,

10

in which

 $V$  is absent or represents O,15  $n$  represents an integer from 1 to 6, $T$  is absent or represents O,20  $R^1$  represents hydrogen, straight-chain or branched alkyl or straight-chain or branched alkoxy having in each case up to 6 carbon atoms, F, Cl, Br or  $CF_3$ , $m$  represents 1 or 2,25  $R^2$  represents hydrogen, straight-chain or branched alkyl having up to 6 carbon atoms, F, Cl, Br or  $CF_3$ ,30  $W$  represents  $CH_2CH_2CH_2$  or  $CH_2CH=CH$  and is located on the phenyl ring in a position meta to the radical  $V-(CH_2)_n-T-Ph-(R^1)_m$ , with the proviso that  $W$  does not represent  $CH_2CH=CH$  if either simultaneously  $T=V=O$ ,  $R^1=H$  or F,  $m=1$ ,  $R^2=H$ ,  $n=3$  and A and B are

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simultaneously COOH or COOCH<sub>3</sub>, or simultaneously T is absent or represents O, V is absent, R<sup>1</sup>=R<sup>2</sup>=H, n is 4 or 5, A and B are simultaneously COOH or COOCH<sub>2</sub>CH<sub>3</sub>, and o=4,

5 X is absent,

o represents 3 or 4,

A represents COOH,

10

Y represents CH<sub>2</sub>,

B represents COOH,

15 R<sup>3</sup> represents hydrogen,

r represents 0, 1 or 2.

14. A compound as claimed in claim 6,

20

in which

V represents O,

25 n represents an integer from 1 to 10,

T is absent,

30

R<sup>1</sup> represents hydrogen, straight-chain or branched alkyl or straight-chain or branched alkoxy having in each case up to 12 carbon atoms, halogen, CF<sub>3</sub>, OCF<sub>3</sub> or CN,

- m represents 1 or 2,
- 5  $R^2$  represents hydrogen, straight-chain or branched alkyl or straight-chain or branched alkoxy having in each case up to 12 carbon atoms, halogen,  $CF_3$ ,  $OCF_3$  or CN,
- 10 W represents  $CH_2CH_2$  or  $CH=CH$  if W is located on the phenyl ring in a position ortho to the radical  $V-(CH_2)_n-T-Ph-(R^1)_m$ , or represents  $CH_2CH_2CH_2$  or  $CH_2CH=CH$  if W is located on the phenyl ring in a position meta to the radical  $V-(CH_2)_n-T-Ph-(R^1)_m$  angeordnet ist,
- 15 X is absent,
- o represents an integer from 1 to 4,
- A represents  $COOH$  or  $COOR^4$ ,
- 20 in which
- $R^4$  represents alkyl having up to 2 carbon atoms,
- Y represents O, S, SO,  $SO_2$  or  $CH_2$ ,
- 25 B represents  $COOH$ ,  $COOR^8$  or CN,
- in which
- 30  $R^8$  represents alkyl having up to 2 carbon atoms,

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$R^3$  represents hydrogen, straight-chain or branched alkoxy having up to 6 carbon atoms, F, Cl, Br or I,

$r$  represents 0, 1 or 2.

5

15. A compound as claimed in claim 6,

in which

10

$V$  represents O,

$n$  represents an integer from 1 to 6,

$T$  is absent,

15

$R^1$  represents hydrogen, straight-chain or branched alkyl or straight-chain or branched alkoxy having in each case up to 6 carbon atoms, F, Cl, Br or  $CF_3$ ,

20

$m$  represents 1 or 2,

$R^2$  represents hydrogen or straight-chain or branched alkyl having up to 6 carbon atoms,

25

$W$  represents  $CH_2CH_2$  or  $CH=CH$  and is located on the phenyl ring in a position ortho to the radical  $V-(CH_2)_n-T-Ph-(R^1)_m$ ,  
or represents  $CH_2CH_2CH_2$  or  $CH_2CH=CH$  if  $W$  is located on the phenyl ring in a position meta to the radical  $V-(CH_2)_n-T-Ph-(R^1)_m$ ,

30

$X$  is absent,

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o represents an integer from 1 to 4,

A represents COOH or COOR<sup>4</sup>,

5 in which

R<sup>4</sup> represents alkyl having up to 2 carbon atoms,

Y represents O, S or CH<sub>2</sub>,

10

B represents COOH, COOR<sup>8</sup> or CN,

in which

15

R<sup>8</sup> represents alkyl having up to 2 carbon atoms,

R<sup>3</sup> represents hydrogen, straight-chain or branched alkoxy having up to 4 carbon atoms, Cl or Br,

20

r represents 0, 1 or 2.

16. A compound as claimed in claim 6,

in which

25

V represents O,

n represents an integer from 1 to 6,

30

T is absent,

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- $R^1$  represents hydrogen, straight-chain or branched alkyl or straight-chain or branched alkoxy having in each case up to 6 carbon atoms, F, Cl, Br or  $CF_3$ ,
- 5  $m$  represents 1 or 2,
- $R^2$  represents hydrogen or straight-chain or branched alkyl having up to 6 carbon atoms,
- 10  $W$  represents  $CH_2CH_2$  or  $CH=CH$  and is located on the phenyl ring in a position ortho to the radical  $V-(CH_2)_n-T-Ph-(R^1)_m$ ,  
or represents  $CH_2CH_2CH_2$  or  $CH_2CH=CH$  if  $W$  is located on the phenyl ring in a position meta to the radical  $V-(CH_2)_n-T-Ph-(R^1)_m$ ,
- 15  $X$  is absent,  
 $o$  represents an integer from 1 to 4,
- $A$  represents  $COOH$ ,
- 20  $Y$  represents O, S or  $CH_2$ ,  
 $B$  represents  $COOH$ ,
- 25  $R^3$  represents hydrogen, straight-chain or branched alkoxy having up to 4 carbon atoms, Cl or Br,  
 $r$  represents 0, 1 or 2.
- 30 17. A compound as claimed in claim 7,



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in which

V is absent,

5 n represents an integer from 1 to 3,

T is absent,

10 R<sup>1</sup> represents hydrogen, straight-chain or branched alkyl or straight-chain or branched alkoxy having in each case up to 12 carbon atoms, halogen, CF<sub>3</sub>, OCF<sub>3</sub> or CN,

m represents 1 or 2,

15 R<sup>2</sup> represents hydrogen, straight-chain or branched alkyl or straight-chain or branched alkoxy having in each case up to 12 carbon atoms, halogen, CF<sub>3</sub>, OCF<sub>3</sub> or CN,20 W represents CH<sub>2</sub>CH<sub>2</sub> or CH=CH and is located on the phenyl ring in a position ortho to the radical V-(CH<sub>2</sub>)<sub>n</sub>-T-Ph-(R<sup>1</sup>)<sub>m</sub>, or represents CH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub> or CH<sub>2</sub>CH=CH if W is located on the phenyl ring in a position meta to the radical V-(CH<sub>2</sub>)<sub>n</sub>-T-Ph-(R<sup>1</sup>)<sub>m</sub>,

X is absent,

25 o represents an integer from 1 to 4,

A represents COOH or COOR<sup>4</sup>,

30 in which

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R<sup>4</sup> represents alkyl having up to 2 carbon atoms,

Y represents O, S, SO, SO<sub>2</sub> or CH<sub>2</sub>,

5 B represents COOH, COOR<sup>8</sup> or CN,

in which

R<sup>8</sup> represents alkyl having up to 2 carbon atoms,

10

R<sup>3</sup> represents hydrogen, straight-chain or branched alkoxy having up to 6 carbon atoms, F, Cl, Br or I,

r represents 0, 1 or 2.

15

18. A compound as claimed in claim 7,

in which

20

V is absent,

n represents an integer from 1 to 3,

T is absent,

25

R<sup>1</sup> represents hydrogen, straight-chain or branched alkyl or straight-chain or branched alkoxy having in each case up to 6 carbon atoms, halogen, F, Cl, Br or CF<sub>3</sub>,

30

m represents 1 or 2,

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- $R^2$  represents hydrogen or straight-chain or branched alkyl having up to 6 carbon atoms,
- 5       $W$  represents  $CH_2CH_2$  or  $CH=CH$  and is located on the phenyl ring in a position ortho to the radical  $V-(CH_2)_n-T-Ph-(R^1)_m$ ,  
or represents  $CH_2CH_2CH_2$  or  $CH_2CH=CH$  if  $W$  is located on the phenyl ring in a position meta to the radical  $V-(CH_2)_n-T-Ph-(R^1)_m$ ,
- 10       $X$  is absent,
- $o$  represents an integer from 1 to 4,
- $A$  represents  $COOH$  or  $COOR^4$ ,
- 15      in which
- $R^4$  represents alkyl having up to 2 carbon atoms,
- 20       $Y$  represents  $O$ ,  $S$  or  $CH_2$ ,
- $B$  represents  $COOH$ ,  $COOR^8$  or  $CN$ ,
- in which
- 25       $R^8$  represents alkyl having up to 2 carbon atoms,
- $R^3$  represents hydrogen, straight-chain or branched alkoxy having up to 4 carbon atoms,  $Cl$  or  $Br$ ,
- 30       $r$  represents 0, 1 or 2.

19. A compound as claimed in claim 7,

in which

5 V is absent,

n represents 1 or 2,

T is absent,

10

R<sup>1</sup> represents hydrogen, straight-chain or branched alkyl or straight-chain or branched alkoxy having in each case up to 6 carbon atoms, halogen, F, Cl, Br or CF<sub>3</sub>,

15 m represents 1 or 2,

R<sup>2</sup> represents hydrogen or straight-chain or branched alkyl having up to 6 carbon atoms,

20

W represents CH<sub>2</sub>CH<sub>2</sub> or CH=CH and is located on the phenyl ring in a position ortho to the radical V-(CH<sub>2</sub>)<sub>n</sub>-T-Ph-(R<sup>1</sup>)<sub>m</sub>, or represents CH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub> or CH<sub>2</sub>CH=CH if W is located on the phenyl ring in a position meta to the radical V-(CH<sub>2</sub>)<sub>n</sub>-T-Ph-(R<sup>1</sup>)<sub>m</sub>,

25

X is absent,

o represents an integer from 1 to 4,

A represents COOH,

30

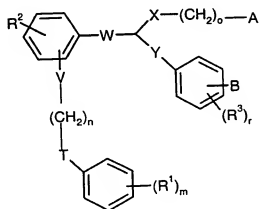
Y represents O, S or CH<sub>2</sub>,

B represents COOH,

R<sup>3</sup> represents hydrogen, straight-chain or branched alkoxy having up to 4 carbon atoms, Cl or Br,

r represents 0, 1 or 2.

20. A process for preparing the compounds of the formula (I)



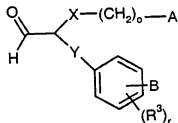
(I)

in which

R<sup>1</sup>, R<sup>2</sup>, R<sup>3</sup>, A, B, T, V, W, X, Y, m, n, o and r have the meaning given above,

comprising

[α] the reaction of aldehydes of the general formula (II)



(II)

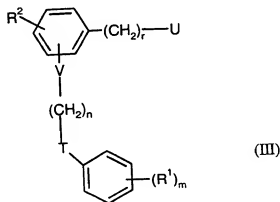
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in which

$R^3$ , A, B, X, Y, o and r have the meaning given above, with the proviso that A and B may not represent free carboxyl groups,

5

with phosphorus compounds of the general formula (III)



10

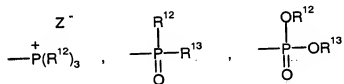
in which

$R^1$ ,  $R^2$ , T, V, m and n have the meanings given above,

r represents 1 or 2, and

15

U represents a radical of the formula



20

in which

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$R^{12}$  and  $R^{13}$  independently of one another represent straight-chain or branched alkyl having up to 12 carbon atoms or phenyl, and

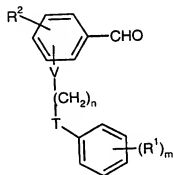
5                     $Z$  represents a halide anion or tosylate anion,

in inert solvents in the presence of a base,

10                    and, if appropriate, the subsequent partial or complete hydrolysis of the radicals A and B to free carboxylic acid groups;

or

15                    [β] the reaction of aldehydes of the formula (i)



(i)

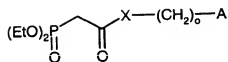
in which

$R^1$ ,  $R^2$ ,  $T$ ,  $V$ ,  $m$  and  $n$  have the meanings given above

20

with phosphorus compounds of the formula (ii)

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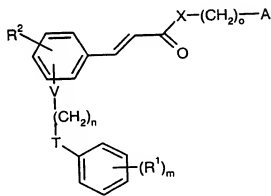
(ii)

in which

X, o and A have the meanings given above,

5

to give compounds of the formula (iii)



(iii)

in which

10

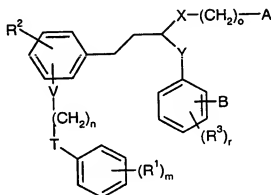
 $\text{R}^1$ ,  $\text{R}^2$ , T, V, m, n, X, o and A have the meanings given above,

and the subsequent conversion of the compounds of formula (iii) into compounds of the formula (iv)

15



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(iv)

in which

$R^1, R^2, T, V, m, n, X, o, r, A, B$  and  $R^3$  have the meanings given above,

5

$Y$  represents  $O, SCH_2$  or  $S$ ,

by successive reduction of the carbonyl group and the alkene group and subsequent substitution of the hydroxyl group, formed by the reduction of the carbonyl group, with alcohols or thiols and, if appropriate, subsequent oxidation to the corresponding sulfoxide or sulfone compounds.

10

- Sub  
13
21. A medicament, comprising at least one compound of the general formula (I) as claimed in any of the preceding claims 3 to 19.
  22. The use of compounds of the formula (I) as claimed in any of the preceding claims 3 to 19 for preparing a medicament for the treatment of cardiovascular disorders.
  - 20 23. The use of compounds of the general formula (I) as claimed in any of the preceding claims 3 to 19 for preparing medicaments for the treatment of angina pectoris, ischemias and cardiac insufficiency.

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- A2  
Cis
24. The use of compounds of the general formula (I) as claimed in any of the preceding claims 3 to 19 for preparing medicaments for the treatment of hypertension, thromboembolic disorders, arteriosclerosis and venous disorders.
25. The use of compounds of the general formula (I) as claimed in any of the preceding claims 3 to 19 for preparing medicaments for the treatment of fibrotic disorders.
26. The use as claimed in claim 25, characterized in that the fibrotic disorder is hepatic fibrosis.